California Regional Water Quality Control Board
North Coast Region
Bob Anderson, Chairman

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Linda S. Adams
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

October 10, 2008

In the Matter of

Water Quality Certification

for the

PG&E – HUMBOLDT BAY REPOWERING PROJECT
WDID NO. 1B08131WNHU

APPLICANT:	Pacific Gas and Electric Company
RECEIVING WATER:	Wetlands and Buhne Slough
HYDROLOGIC UNIT:	Eureka Plain Hydrologic Unit No. 110.00
COUNTY:	Humboldt
FILE NAME:	PG&E – Humboldt Bay Repowering Project

BY THE EXECUTIVE OFFICER:

1. On September 17, 2008, the Pacific Gas and Electric Company (Applicant) filed an application for water quality certification (certification) under section 401 of the Clean Water Act (33 U.S.C. § 1341) with the California Regional Water Quality Control Board, North Coast Region (Regional Water Board) for activities associated with construction of a new power plant at the Humboldt Bay Power Plant facility in the community of King Salmon. The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on September 17, 2008, and posted information describing the project on the Regional Water Board's website. We did not receive any public comments on this project.

2. The Humboldt Bay Repowering Project (HBRP) is located at 1000 King Salmon Avenue, approximately three miles south of Eureka in an unincorporated area of Humboldt County. The existing Humboldt Bay Power Plant is fifty years old and nearing the end of its useful life. The purpose and need of the project is to construct a new power plant that will provide more efficient and reliable power to the Humboldt Bay area. The project will be located on 5.4 acres within the 143-acre parcel currently occupied by the existing Humboldt Bay Power Plant. An additional 7.2 acres will be used for a temporary access road, contractor parking, material storage, and construction staging areas.

3. The HBRP is designed to eventually replace Units 1 and 2 of the existing Humboldt Bay Power Plant. These units are presently cooled using ocean water from Humboldt Bay in a once-through cooling design that uses approximately 52,000 gallons-per-minute (gpm). These existing units will cease operating upon completion of the HBRP and pumping ocean water for power plant cooling will be discontinued. The pumps will continue to provide 12,900 gpm of ocean water for the retired nuclear unit until that unit is also decommissioned.

4. The HBRP will be constructed in 2 phases. Phase 1 will consist of installing Best Management Practices (BMPs) for storm water pollution control and demolition of existing buildings and structures. Phase 1 activities will also include remediation of contaminated soils, upgrading a construction parking lot, constructing a temporary access road, improving existing culverts, installation of a potable water pipeline, and wetland mitigation activities. Phase 2 activities will consist of the remaining construction activities that are required to build the HBRP facility. A portion of the wetland mitigation activities will be conducted after HBRP construction activities no longer require the use of a remote parking lot area because a portion of that parking lot will be converted to wetlands that will be part of the Buhne Point Wetlands Preserve.

5. Storm water runoff from the developed areas of the site is controlled by surface drainage features and a storm water collection system that was constructed as part of the existing facility. The eastern portion of the site where the HBRP is located drains easterly into Buhne Slough. Two small drainage ditches will be directed into a new storm water treatment and retention basin system. The treatment system will include a temporary hydrodynamic separator to remove sediment and debris from the storm water during the construction phase. Treated storm water will flow through a culvert to a riprap energy dissipater and through an existing seasonal wetland before discharging into Buhne Slough. The seasonal wetland has been colonized by weedy species and it will be enhanced with native plant species to improve storm water filtration.

6. The storm water drainage system for the new HBRP facility will be modified following construction activities to provide for post-construction runoff treatment. The hydrodynamic separator that was installed for the construction phase will be replaced with a different type of storm water filtration device. The post-construction storm water filtration system will be a passive flow-through device that uses cartridge-type media filters to trap particulates and absorb pollutants, such as dissolved metals, hydrocarbons, and nutrients. During construction activities, a storm water bioretention basin area will also be constructed for use after the HBRP is operational. The bioretention basin area will be located on the east side of the project site and south of the liquid fuel tank containment area. Runoff from the site will be collected in a gravity storm drain system and pumped into the bioretention area as the primary storm water treatment and infiltration system. The bioretention area has been sized to the maximum available foot print which is approximately 4,500 square feet. Construction of the bioretention area will consist of an

approximately 6-foot thick layer of improved soil which includes a sand drainage layer at the bottom, a planting mixture above the soil layer, and a top layer of ground cover and/or mulch. An overflow into the media filter device will be provided to route excess flows from the bioretention area.

7. The storm water retention and treatment system will be operated such that low-flow rainfall events and the first flush from heavy storms will be captured and pumped into the bioretention area. A flow control device will be installed to prevent erosion in the retention basin area. During heavy and extended rainy periods, the anticipated amount of runoff from the plant site will exceed the infiltration rate and the basin storage capacity. Excess storm water from the bioretention area will be routed to the filter device, which will serve as a secondary storm water treatment system. During extremely heavy storms, runoff from the facility will exceed the capacity of the pumps and flows will bypass the bioretention area and flow directly through the filter device. A bypass around the filter device will also be provided to accommodate very high flows.

8. Three culverts located along the existing access road also convey storm water runoff from the existing site. These culverts will be upgraded to support heavy equipment on the existing access road. A temporary access road will be required for the HBRP. The temporary access road will be constructed along the east side of Buhne Slough and requires installation of a retaining wall adjacent to the slough. The retaining wall will be constructed using fabric and rock. The retaining wall will not impact the banks or channel of Buhne Slough but the access road will temporarily impact 0.310 acre of existing state jurisdictional wetlands.

9. Construction of the HBRP will permanently impact 1.184 acres of existing wetlands including 0.223 acres of federal jurisdictional wetlands and 0.961 acres of state jurisdictional wetlands. Construction of the HBRP will also result in temporary impacts to 2.526 acres of wetland including 0.032 acres of federal jurisdictional wetlands and 2.494 acres of state jurisdictional wetlands.

10. Compensatory mitigation is required for the project. The Applicant submitted the Buhne Point Wetlands Preserve Mitigation and Monitoring Plan for Humboldt Bay Repowering Project (Mitigation Plan). The Mitigation Plan identifies eight onsite mitigation areas that will be used to fulfill the mitigation requirements. The Mitigation Plan provides for creation of new wetlands and enhancement and restoration of existing wetlands within the Humboldt Bay Power Plant property. The Mitigation Plan provides for onsite creation of 1.821 acres of new wetlands to compensate for the 1.184 acres of permanent wetland impacts. Mitigation for 2.526 acres of temporary wetland impacts includes enhancement and restoration of 3.656 acres of existing onsite wetlands. Enhancement and restoration activities will primarily involve the removal of exotic vegetation. The resulting mitigation for impacts from the HBRP will result in a total of 5.6 acres of contiguous newly created and enhanced wetland habitat that will be preserved in perpetuity under a deed

restriction. Wetland creation activities within the newly established Buhne Point Wetlands Preserve will begin during Phase 1.

11. The Applicant has obtained authorization from the United States Army Corps of Engineers (File No. 2006-400205N) to perform the project under Nationwide Permit Numbers 7, 12, and 39, pursuant to Clean Water Act, section 404. A Lake or Streambed Alteration Agreement from the California Department of Fish and Game is not required for the project.

12. The HBRP and its related facilities are subject to California Energy Commission (CEC) licensing jurisdiction. The licensing process includes public conferences and evidentiary hearings, where the evidentiary record is developed and becomes the basis for the Presiding Member's Proposed Decision (PMPD). During the licensing proceedings, the CEC acts as lead agency for compliance with the California Environmental Quality Act. The CEC's regulatory process, including the evidentiary record and associated analyses, is functionally equivalent to the preparation of an Environmental Impact Report (EIR). The Regional Water Board is using the PMPD in place of an EIR. The Regional Water Board has considered the PMPD and any proposed changes incorporated into the project or required as a condition of approval to avoid significant effects to the environment. The PMPD indicates the proposed project will result in temporary and permanent impacts to wetlands and project construction activities have the potential to induce erosion and sedimentation. Implementation of the mitigation measures described in the PMPD and project description, including the Mitigation Plan and a Storm Water Pollution Prevention Plan, is required as a condition of approval. Implementation of these plans is expected to reduce potential wetland impacts and sedimentation impacts to less-than-significant levels.

13. This discharge is also regulated under State Water Resources Control Board Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification," which requires compliance with all conditions of this water quality certification.

Receiving Water:	wetlands and Buhne Slough in the Eureka Plain Hydrologic Unit No. 110.00	
Filled or Excavated Area:	Area Temporarily Impacted:	0.032 acre of federal jurisdictional wetlands and 2.494 acres of state jurisdictional wetlands
	Area Permanently Impacted:	0.223 acre of federal jurisdictional wetlands and 0.961 acre of state jurisdictional wetlands
Total Linear Impacts:	Length Temporarily Impacted:	None

Length Permanently Impacted: None

Dredge Volume: None

Latitude/Longitude: 40.74178 N/124.21044 W

Accordingly, based on its independent review of the record, the Regional Water Board certifies that the Humboldt Bay Repowering Project (WDID No.1B08131WNHU), as described in the application, will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law, provided that the Applicant complies with the following terms and conditions:

1. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330 and title 23, California Code of Regulations, section 3867.

2. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to title 23, California Code of Regulations, section 3855, subdivision (b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3. This certification is conditioned upon total payment of any fee required under title 23, California Code of Regulations, section 2200, and owed by the Applicant.

4. The Regional Water Board shall be notified prior to the commencement of ground disturbing activities, with details regarding the construction schedule, in order to allow staff to be present onsite during construction, and to answer any public inquiries that may arise regarding the project.

5. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this Order, shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the State. When operations are completed, any excess material or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream.

6. BMPs for erosion, sediment and turbidity control shall be implemented and in place at commencement of, during and after any ground clearing activities or any other project activities that could result in erosion or sediment discharges to surface water.

7. All activities and BMPs shall be implemented according to the submitted application and the conditions in this certification.

8. A copy of this Order and the application documents submitted by the Applicant for this certification shall be provided to all contractors and subcontractors conducting the work, and shall be in their possession at the work site.

9. The Applicant shall implement the mitigation, monitoring and reporting measures contained in the PMPD and the Buhne Point Wetlands Preserve Mitigation and Monitoring Plan for Humboldt Bay Repowering Project. The Applicant shall monitor the mitigation area on an annual basis, with at least one site visit during the spring or summer months, for a minimum of three years following completion of the mitigation project. Final performance monitoring shall occur no sooner than three years after completion of mitigation activities and no later than five years from the date of this certification. A final monitoring report shall be submitted following the final performance monitoring that documents achievement of the performance standards and containing observations and photos of the mitigation areas that shall have been taken throughout the monitoring period. If final performance monitoring indicates that the mitigation activities have not met the performance standards, the Applicant shall submit a revised mitigation, monitoring, and reporting plan within 90 days of completing the final performance monitoring.

10. The Applicant shall record a legal deed restriction over the Buhne Point Wetlands Preserve and shall submit a copy of the deed restriction to the Regional Water Board by March 1, 2009.

11. The Applicant shall submit a hydrology report by April 1, 2009 that assesses whether the planned changes in pumping rates will cause sediment in the intake channel to be transported to Humboldt Bay. The report shall include the amount and extent of transport of any sediment that was previously identified as radioactively contaminated to a level that exceeds the background level in Humboldt Bay. If the report indicates that sediment in the intake channel will migrate towards Humboldt Bay, the Applicant shall also submit a workplan for conducting a human health and ecological risk assessment (risk assessment workplan) for the Executive Officer's approval by April 1, 2009. The Applicant shall implement the risk assessment workplan within 90 days of approval. The Applicant shall also implement any mitigation measures that are determined to be necessary in order to address any risk to human health or the environment before making any changes to the pumping rate.

12. Prior to completion of construction of the new power plant facility, the Applicant shall submit an acceptable post-construction storm water management plan (plan) for the site of the former power plant facility. The plan shall include details on proposed storm water treatment measures to address impacts associated with storm water runoff quality and quantity from all remaining impervious surface areas associated with the former power plant facility. The plan shall utilize Low Impact Development techniques where feasible. The plan shall include a time schedule to implement the approved storm water treatment measures as soon as possible.

13. If, at any time, an unauthorized discharge to surface water (including wetlands, rivers or streams) occurs, or any water quality problem arises, the associated project activities shall cease immediately until adequate BMPs are implemented. The Regional Water Board shall be notified promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises.

14. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete the project.

15. Prior to implementing any change to the project that may have a significant or material effect on the findings, conclusions, or conditions of this Order, the Applicant shall obtain the written approval of the Regional Water Board Executive Officer.

16. All project work shall be conducted as described in this Order and in the application submitted by the Applicant. If the Regional Water Board is not notified of a significant alteration to the project, it will be considered a violation of this Order, and the Applicant may be subject to Regional Water Board enforcement actions.

17. The Regional Water Board may add to or modify the conditions of this Order, as appropriate, to implement any new or revised water quality standards and implementation plans adopted and approved pursuant to the Porter-Cologne Water Quality Control Act or Section 303 of the Clean Water Act.

18. The Applicant shall provide Regional Water Board staff access to the project site to document compliance with this certification.

19. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable State or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification. In response to a suspected violation of any condition of this certification, the Regional Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this certification, the Regional Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

20. In the event of any change in control of ownership of land presently owned or controlled by the Applicant, the Applicant shall notify the successor-in-interest of the

existence of this Order by letter and shall forward a copy of the letter to the Regional Water Board at the above address.

To discharge dredged or fill material under this Order, the successor-in-interest must send to the Regional Water Board Executive Officer a written request for transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, and the address and telephone number of the person(s) responsible for contact with the Regional Water Board. The request must also describe any changes to the project proposed by the successor-in-interest or confirm that the successor-in-interest intends to implement the project as described in this Order.

21. Except as may be modified by any preceding conditions, all certification actions are contingent on: a) the discharge being limited to and all proposed mitigation being completed in strict compliance with the Applicant's project description, and b) compliance with all applicable requirements of the Water Quality Control Plan for the North Coast Region (Basin Plan).

22. The authorization of this certification for any dredge and fill activities expires on October 10, 2013. Conditions and monitoring requirements outlined in this certification are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

If you have any questions or comments please call Dean Prat at (707) 576-2801.

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Catherine Kuhlman
Executive Officer

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Original to: Mr. Joe Sutton, PG&E, 1000 King Salmon Avenue, Eureka, CA 95502

Copies to: U.S. Army Corps of Engineers, District Engineer, 601 Startare Drive, Box 14, Eureka, CA 95501
Ms. Jane Hicks, U.S. Army Corps of Engineers, Regulatory Functions, 1455 Market Street, San Francisco, CA 94103-1398
Ms. Susan Strachan, Strachan Consulting, P.O. Box 1049, Davis, CA 95617-1049